

## PROCEEDINGS

of the American Society of

Civil Engineer

DART S

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## Functional Expansion Program

2 PARTS

EVERY member of the Society should study the far-reaching policy of expansion which was adopted by the Board of Direction in January. It consists of a re-alignment and extension of all the activities and methods of the Society, with a definition of their scope. Several new functions have been officially adopted, many more opportunities have been opened for service by interested members, and existing activities have been confirmed or strengthened. The abstract below gives the gist of the entire program as found in Part 1.

RANK recognition of the engineer's professional, or vocational, problems and needs is a prime feature of the Functional Expansion Program adopted by the Board of Direction in January. For 77 years the Society has performed technical functions as its major effort. Without lessening that effort it has now accepted the obligation to develop a department dealing with the humanities in engineering.

At various times in the past this general intent has been considered by the Society, but until the present it has never been practicable of adoption as a whole-hearted and definite phase of Society work.

A very important feature of the plan is the integration between much wider limits than heretofore, of the loyalty, capacity and willingness to serve which have been shown by the membership at large. These qualities have been insufficiently used and the Functional Expansion Program is designed to afford a larger participation by the membership in the activities of the Society.

Because of the normal growth of activities within the Society and particularly the demands made upon the members of the Board of Direction for their individual attention to detail, certain duties had from time to time been delegated to advisory committees. A portion of the new expansion consists in a comprehensive plan to assemble these committees into logical departments, and to delegate to new committees certain other functions hitherto performed exclusively by Board members.

There are created also a number of brand new committees to deal with certain other professional features. This drafting of new aides will therefore relieve the Board of Direction of much detail. The Board should be free to devote its best energies to Society policies and the general oversight of results.

The program adopted in January

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#### Go Back to School?

GRADUATE work is becoming an increasingly important item in the preparation of many young men to enter the Civil Engineering Profession. This attitude is reflected by the number of Fellowship announcements that come to Society headquarters at this time of year.

All who are interested will do well to communicate promptly with the various universities, since, to be considered for the coming academic year, applications should be in the hands of the proper authorities within a very few weeks.

# Sacramento April 23, 24, 25

THE 1930 Spring Meeting will be held in Sacramento, California. The many possible details have been crystallized into a program which combines interesting regional features with subjects of quite general appeal.

Western members, who do not concede that mere distance should keep them away, and Eastern members who face the double temptation of an interesting program combined with a possible short vacation, are equally assured of a hearty greeting at the hands of their Californian hosts.

The General Session on Wednesday, April 23, includes two topics of wide interest and importance: "Maximum Conservation of Water Resources", and "State Supervision of the Design and Construction of Dams".

Four Technical Divisions have arranged sessions for Thursday. The Highway Division will devote the morning to "Western Highway Practice" and "Developments in Low-Cost Bituminous Roads", and the afternoon to "The Pre-Qualification of Contractors".

The Irrigation Division will take up "The Proposed Colorado River Aqueduct and Metropolitan Water District of Southern California"; "Foundation Treatment of the Rodriguez Dam", and "Hydro-Electric Power as an Aid to Irrigation".

The Structural Division will divide interest between "The Suisun Bay Bridge" and "Structural Features of the Salt Spring Dam".

The Surveying and Mapping Division will also conduct a session.

The California members are to be congratulated upon a selection of topics which have such wide appeal to engineers generally throughout the country. In addition there will be the conference of Local Section representatives, a meeting of Student Chapter representatives, and the usual social functions attractive to members and ladies as well.

## John Nolty—Printer 1851-1930

E was not an engineer, he never attended Society meetings; and yet it is a perfectly safe hazard that John Nolty in a long lifetime of intimacy with the American Society of Civil Engineers, knew more about its publications than most members—or officers either, for that matter.

In 1867 The Evening Post first started to print Society publications; in 1874 Mr. Nolty entered the employ of that newspaper. In 1879 when the printing department began to be operated as a separate business under the ownership of Mr. Henderson, erstwhile owner of the newspaper, Mr. Nolty became Secretary, subsequently Manager, and then President of The Evening Post Job Printing Office—the latter two posts being held up to his death on January 26, 1930. Thus the Society's publication record involved for 51 years a continuous contact with a single person. Who would not be proud of such a record?

Because of the quality of Mr. Nolty's work and his business ethics, it became second nature to consider the printer as an integral part of the Society, and to rely on his good judgment. Through the vicissitudes of Publication Committee changes, varying administrative viewpoints and mounting costs of metropolitan printing, he always tempered the demands of business finance with the determination to maintain an unbroken friendship with the Society. Safe to say, its dignity and prestige never suffered at his hands in the many years of association and in printing work running into several million dollars in the aggregate.

In the death of John Nolty, the Society loses an old and a staunch friend.

S A C R A M E N T O SPRING MEETING APRIL 23, 24 and 25

## During 1929

Highlights of the Annual Report

The Society's 77th year.

Membership total 14,085.

Net gain: 80 Members

159 Associate Members

262 Juniors

508 Total

2,253 Juniors now constitute 16% of the Membership.

Local Sections reached an even 50 by the addition of Florida, New Mexico and Porto Rico.

Student Chapters were increased to 96 by Clarkson College of Technology, Tufts College, and University of New Mexico.

Technical Divisions, 9 in number, provided 23 of the 29 technical sessions at Society meetings.

At meetings there were 99 papers presented and 67 persons contributed discussions; abstracts of all were printed in Proceedings. Attendance at meetings, 3,384.

Proceedings, Parts 1 and 2; Transactions; Year Book; and Manual No. 2 carried 6,160 pages of technical and Society matter to every member of the Society. Proceedings contained full papers by 36 authors, 262 discussions, and memoirs contributed by 173 members. Two hundred and eighty "experts" assisted in the selection and development of papers.

More than 300 committees—Local Membership, Research, Meetings, Divisions, Administrative and Special—were operative.

On the basis of definite records alone, 2,150 members of the Society contributed of time, knowledge or effort to the advancement of the Society, in all cases without remuneration.

Employment Service Offices at New York, Chicago, and San Francisco registered 3,628 men and placed 1,664, or 46%.

The Library added 4,912 volumes and 2,699 pamphlets. The permanent collection now stands at 135,408.

It was used by 38,800 people, either by visitation or by mail.

Expenditures for current operations of the Society totaled \$336,802.

## Fraternizing

PNTHUSIASTIC co-operation between Local Sections and Student Chapters has become so fixed a habit that it can scarcely be rated as front-page news, in the sense of being unusual. Nevertheless, space should be found from time to time for a record of typical or unusual details which may serve as suggestions in the further extension of the principle. The following examples were picked from the January and February files of Local Section correspondence:

The Mid-South Section held its Fall Meeting at the University of Mississippi. The members were welcomed by Chancellor Hume of the University. The local committee of arrangements consisted of Dean Dorroh and Professor Tomlinson. A college hour, with a program of particular interest to undergraduates, preceded the regular session, following which a dinner was served with entertainment furnished by the students. A two-page bulletin was later sent to the members of the Section, describing the session in detail.

The Central Ohio Section held a recent joint meeting under the direction of the Ohio State University Chapter, with the President of the Chapter, Mr. S. T. Carpenter, in the chair. The session was held at the University Union in Columbus, and was attended by 17 members of the Section and 36 students.

The Rochester Section entertained the Cornell Chapter at an all-day inspection trip to points of engineering interest in and about Rochester, N.Y. The Student Chapter Committee of the Section, consisting of Messrs. Cooman, Starr and Stephens, prepared a booklet of more than thirty pages descriptive of the itinerary. It is interesting to note that in addition to printed matter, the Committee utilized blueprints, hektographed sheets, and photgraphic prints in making up the guide book.

Seventy-eight members of the Chapter attended. All were entertained as guests of the Section at a regular noon luncheon of the Rochester Engineering Society, at which E. A. Fisher, Hon. M. Am. Soc. C. E., made an address. Finances were underwritten by members and later absorbed by a special assessment within the Section.

## Geography and Meetings

PEFINITE assignment of the Quarterly Meetings of the Society to three geographical regions, in charge of appropriate committees of the Board of Direction, is an important feature of the new Functional Expansion Program.

The objective sought is to place in regional, rather than local, hands the responsibility for the conduct of general Society meetings and the determination of the place, time, topic and character of future sessions. Since the members who live within these areas may be conceded to know the most about their own region with regard to these details, they are to be consulted through a system of representation. As a continuing policy, the Society may thus expect to find its Quarterly Meetings held near work of the maximum technical and professional interest.

During 1930, the schedule of meetings does not conform to the final geographical plan, but beginning with 1931 the scheme will be as fol-

Spring Meetings will be held in a south-eastern region whose northern boundary coincides with the northern boundaries of Oklahoma, Arkansas, Tennessee, West Virginia, Maryland and Delaware. Annual Conventions will occur west of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Texas. The Fall gathering will be in the remaining north and east section, and the Annual Meeting, as required, in New York.

Each Regional Meeting Committee will consist of the Vice-President and the members of the Board of Direction resident within one of the above regions. It will take complete charge of each meeting and the preparation for the succeeding one due the following year in the same area.

At each Quarterly Meeting, the committee will call a conference of advisers consisting of one accredited representative from each Local Section in that region. (Each delegate

must be also a member of the Board of Directors of his Section.) A definite portion of each conference will then be devoted to the determination of the place, time, topic and character of the next year's session.

In addition, these conferences will foster, through personal contact, the interchange of many ideas and experiences in Local Section affairs. It will also be noted that during each year this plan will bring approximately fifty more members into the direct service of the Society, while indirectly through their representatives the entire Local Section membership will contribute to the success of future meetings.

This particular feature of the Functional Expansion Program illustrates well the new policy of decentralization, with the attendant mobilization of the membership to carry on under the new plan.

The first of these conferences will be held at Sacramento on Tuesday, April 22.

## Columbia Scholarship

THE Scholarship in Civil Engineering at Columbia University is again at the disposal of the Society.

Announcement in April, 1925, Proceedings, Part 1, gave the details. In brief, the Scholarship pays \$350 toward the tuition fees—practically their total amount. There is also the possibility of renewal to a promising applicant.

The work is post-graduate. Although not confined to Juniors of the Society or members of Student Chapters, such applicants have special preference.

Applications should reach Headquarters before July I, should state the age, place of birth, education, college activities of the applicant, and should be accompanied by references and a photograph.

### Volume 88

ROM China comes a request for a copy of Transactions Vol. 88. A member of the Society at present engaged in consulting work in that country reports that technical reference libraries practically do not exist. As a nucleus he has donated his own set of Transactions to the

Engineers of China and placed them in the temporary keeping of a rail-way engineering staff.

The Society files were able to supply four missing volumes. There is no copy of Vol. 88 available. An appeal is therefore made for the donation of this volume from some member who can spare it. The Society will be happy to pay carrying charges to New York and will see that the volume is delivered in China.

In case more than one copy should be received, the others will be held for similar donations in the future.

## March Proceedings

OT a little of the interest of this issue arises from the inclusion of much material originating in the 77th Annual Meeting last January.

As representing the general session at this meeting, a single paper is given under the title of "A Philosophy of Engineers' Salaries", by E. P. Goodrich, M. Am. Soc. C. E. In condensed form he not only analyzes the "whys and wherefores" of engineers' salaries as they are, but explains some of the things which should be done and may be done to better the situation.

Each of the several Technical Divisions providing sessions at the Annual Meeting are represented by a digest of the essential engineering facts brought out. A tendency will be noted to cut down the number of topics studied, but to intensify the discussion of them. Perusal of these abstracts will emphasize what has so long been apparent to many members, that the Divisions are putting constructive thought and effort into their programs.

Space remaining provided for only three papers, comprising a Symposium on "Rail and Water Transportation". Few persons are better qualified to discuss "Waterway Transportation from the Viewpoint of Operation" than the author, Major General T. Q. Ashburn, U.S.A. He shows how the experience of the Inland Waterways Corporation, operating on the Mississippi River, justifies faith in the economy of such transportation.

The next paper, "Railways vs. Waterways; An Economic Comparison", by L. D. Cornish, M. Am. Soc. C. E., covers the general transportation field in America. In the next

two decades the growth of traffic will demand the completion of the Mississippi River improvement; the economical returns, however, will more than justify this, Mr. Cornish believes.

Rounding out the Symposium, the viewpoint of the railroad is emphasized by E. A. Hadley, M. Am. Soc. C. E., under the title, "Relation Between Rail and Waterway Transportation". He shows how Government expenditures in reality provide a subsidy for barge transportation. The same amount if spent for railway improvements would accomplish more for the country and at a greater economy in addition. No one can study this Symposium without realizing that in the vital factors involved there is more than one side to be considered.

In terms of valuable ideas presented and of extensive studies to benefit the Profession in general, the discussions appearing in the March issue deserve more extended notice. However, it must suffice merely to note the extent—34 discussions covering 11 current papers. There are also 10 memoirs of deceased Society members.

Note should also be made that in the forepart of this issue of Proceedings, that is, in Society Affairs, appears the Annual Report of the Board of Direction. The achievements of the Society during 1929 in its various departments and activities may be clearly visualized from the data there summarized.

#### Functional Expansion Program

(Continued from page 1)

proposes three departments of Society organization: Technical, Administrative, and Professional. Committees, sub-committees, and contact members will extend each department throughout the membership of the Society. Thus the widely distributed membership will participate in a larger degree in both the administration of the Society and the carrying out of its definite programs.

The Board of Direction will retain within its own personnel the Executive, Honorary Membership, Districts and Zones, Professional Conduct, and Publications Committees. At its discretion it will have

among its own members or appoint from outside its membership temporary committees to study special problems. To the members of the Board are also assigned duties on Committees on Regional Meetings and Local Sections Conferences. The Board will continue to appoint all representatives to other Societies.

The Technical Department remains unchanged. The Technical Procedure Committee, the Research Committee, and the Technical Divisions continue as in the past.

The new Administrative Department contains, at the start, four advisory committees, each consisting of one Board member and four non-Board members. The Local Sections and Student Chapters Committees are not new although they now are to follow the thought of being composed of men selected for their special capacity and interest in those subjects. Two new committees make their appearance in this department —the Membership Qualifications Committee, which is to review the professional records of all applicants for admission and transfer, reporting thereon to the Board of Direction for its guidance; and a Committee on Juniors which is to concern itself with the needs and opportunities of Junior members of the Society.

The new Professional Department will likewise consist of committees of five with one Board member as contact man. In addition to the formal make-up of these professional committees, they will be authorized from time to time to set up sub-committee groups or individuals to act as local representatives throughout the United States, such representatives to be designated by the Board of Directors of the Local Sections. This policy will touch directly many individual members and enable them to take a most valuable active part in Society affairs. Here is an almost limitless opportunity for mutual aid between the profession and the individual and it is planned to take the maximum advantage of this liaison.

For the present the Professional Department will consist of Committees on Registration of Engineers, on Fees, and on Salaries (all of which have been in existence for some time), and new Committees on Engineering Education, Legislation, and the Education of the Public with respect to Engineering.

This formal dedication of part of the Society's energy to the professional needs of the engineer is an acceptance of a new objective. Of almost equal importance is the utilization of a greater proportion of the membership in the Society's work.

Every single member will be interested in the unfolding of the plan. The entire Functional Expansion Program and a diagram of the resulting organization has been made the leading feature of Part I of this issue (Society Affairs). A study of this will be profitable to all members, enabling them not only to grasp the general changes involved but to secure a more complete visualization of the details.

#### Two More Manuals

TWO more Manuals of Engineering Practice have been authorized for issue by the Society. Manual No. 3 is on Lock Valves. Its 60-odd pages are the result of studies performed by a committee of the Waterways Division, headed by L. C. Sabin. Number 4 is a Selected Bibliography on Construction Methods and Plant, assembled under the direction of W. J. Barney of the Construction Division, and relating to work on bridges, buildings, dams, hydro-electric plants, roads, seawalls, sewers, tunnels, and so forth. It will occupy about 190 pages.

Both Manuals are now complete and are being set up into type. Because of the possibility that these pamphlets may not be of immediate interest to every member, together with a desire to avoid tying up more money than necessary in large editions, the Publications Committee proposes to print a limited number of each.

All members who wish a copy of either Manual are requested to drop a post-card to the Secretary. Governed by the number of requests received prior to the actual printing, and edition will be ordered sufficient to cover all requests and to place enough copies in stock to provide for future demands. There will be no charge to members for either Manual.

Manual No. 1, issued in 1927, is the Code of Practice of the Society. Number 2 defines Terms used in Sewerage and Sewage Disposal Practice, and appeared in 1928.